

Tr cont. X1

(e) recovering a poinsettia plant from said embryo.

6. (Five Times Amended) A method for producing transgenic poinsettia plants, comprising:

- Sub X1*
- J2*
- (a) incubating a poinsettia plant tissue explant that produces a reddish epidermal callus on auxin- and cytokinin-containing callus induction medium to yield a reddish epidermal callus;
 - (b) culturing the reddish epidermal callus on embryo induction medium comprising casein hydrolysate and further comprising NH_4^+ and/or NO_3^- to form embryogenic callus;
 - (c)
 - (i) introducing an expression vector into said incubating embryogenic callus to produce transformed embryogenic callus, wherein said expression vector comprises a selectable marker gene and a second foreign gene, or
 - (ii) introducing two expression vectors into said incubating embryogenic callus to produce transformed embryogenic callus, wherein one of said expression vectors comprises a selectable marker gene, and wherein the second of said expression vectors comprises a second foreign gene;wherein the vector or vectors of (c)(i) and (c)(ii) are introduced into the incubating embryogenic callus by co-incubating the callus with *Agrobacterium tumefaciens* containing the vector or vectors or by microprojectile-mediated delivery of the vector or vectors into the callus;
 - (d) culturing said transformed embryogenic callus on selection medium; followed by
 - (e) culturing said transformed embryogenic callus on developmental medium containing an osmotic pressure increasing agent to yield a transgenic embryo;
 - (f) culturing said transgenic embryo on maturation medium; and
 - (g) recovering a transgenic plant from said transgenic embryo.

Sub X1

39. (Six Times Amended) A method for producing transgenic poinsettia plants, comprising:

- J3*
- (a) incubating a poinsettia plant tissue explant that produces a reddish epidermal callus in auxin- and cytokinin-containing callus induction medium to yield an embryogenic callus;

- J3
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- K1
cont.
- (b) subculturing the embryogenic callus to liquid NH_4^+ and/or NO_3^- containing embryo induction medium comprising casein hydrolysate;
 - (c) filtering the culture and culturing the filtrate in fresh liquid embryo induction medium; followed by
 - (d) filtering the culture and culturing the filtrate on solid embryo induction medium to yield an embryo;
 - (e) subculturing the embryo produced on said embryo induction medium to maturation medium; followed by
 - (f) culturing said embryo on callus induction medium to yield an epidermal callus;
 - (g) subculturing the epidermal callus produced on said callus induction medium to embryo induction medium to form an embryogenic callus;
 - (h)
 - (i) introducing an expression vector into said embryogenic callus to produce transformed embryogenic callus, wherein said expression vector comprises a selectable marker gene and a second foreign gene, or
 - (ii) introducing two expression vectors into said embryogenic callus to produce transformed embryogenic callus, wherein one of said expression vectors comprises a selectable marker gene, and wherein the second of said expression vectors comprises a second foreign gene;wherein the vector or vectors of (h)(i) and (h)(ii) are introduced into the incubating embryogenic callus by co-incubating the callus with *Agrobacterium tumefaciens* containing the vector or vectors or by microprojectile-mediated delivery of the vector or vectors into the callus;
 - (i) culturing said transformed embryogenic callus on selection medium; followed by
 - (j) culturing said transformed embryogenic callus on developmental medium containing an osmotic pressure increasing agent to yield a transgenic embryo;
 - (k) culturing said transgenic embryo on maturation medium; and
 - (l) recovering a transgenic plant from said transgenic embryo.

J4 80. (Amended) The transgenic poinsettia plant of claim 76, wherein said foreign gene confers resistance to a bacterium or a fungus and encodes a polypeptide selected from the group

J4
cont

consisting of chitinase, a β -1,3-glucanase, ribosome-inactivating protein, lytic peptide, and plant defensin.

101. (Three Times Amended) A method for *in vitro* regeneration of poinsettia plants comprising:

- (a) incubating a poinsettia plant tissue explant that produces an epidermal callus on auxin- and cytokinin-containing callus induction medium;
- (b) subculturing the reddish epidermal callus to embryo induction medium comprising a nitrogen source to form embryogenic callus;
- (c) culturing said embryogenic callus on developmental medium containing an osmotic pressure increasing agent and cytokinin; followed by
- (d) culturing said embryogenic callus on maturation medium to yield an embryo; and
- (e) recovering a poinsettia plant from said embryo.

J5

sub
K

102. (Four Times Amended) A method for producing transgenic poinsettia plants comprising the steps of:

- (a) incubating a poinsettia plant tissue explant that produce epidermal callus on auxin- and cytokinin-containing callus induction medium to yield an embryogenic callus;
- (b) subculturing the embryogenic callus to embryo induction medium comprising casein hydrolysate and further comprising NH_4^+ and/or NO_3^- to form an embryogenic callus containing embryos;
- (c)
 - (i) introducing an expression vector into said incubating embryogenic callus to produce transformed embryogenic callus, wherein said expression vector comprises a selectable marker gene and a second foreign gene, or
 - (ii) introducing two expression vectors into said incubating embryogenic callus to produce transformed embryogenic callus, wherein one of said expression vectors comprises a selectable marker gene, and wherein the second of said expression vectors comprises a second foreign gene;

wherein the vector or vectors of (c)(i) and (c)(ii) are introduced into the incubating embryogenic callus by co-incubating the callus with *Agrobacterium tumefaciens*

containing the vector or vectors or by microprojectile-mediated delivery of the vector or vectors into the callus;

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- (d) culturing said transformed embryogenic callus containing embryos on selection medium; followed by
 - (e) culturing said embryogenic callus containing embryos on developmental medium containing an osmotic pressure increasing agent to yield a transgenic embryo;
 - (f) culturing said transgenic embryos on maturation medium; and
 - (g) recovering a transgenic plant from said transgenic embryos.

103. (Three Times Amended) A method for producing transgenic poinsettia plants comprising the steps of:

- Sub*
K
- (a) incubating a poinsettia plant tissue explant that produces a epidermal callus on auxin- and cytokinin-containing callus induction medium to produce an embryogenic callus;
 - (b) subculturing the embryogenic callus produced on said callus induction medium to liquid embryo induction medium comprising casein hydrolysate and further comprising NH_4^+ and/or NO_3^- ;
 - (c) filtering the culture and culturing the filtrate in fresh liquid embryo induction medium; followed by
 - (d) filtering the culture and culturing the filtrate on solid embryo induction medium to produce embryos;
 - (e) subculturing the embryos produced on said embryo induction medium to maturation medium; followed by
 - (f) culturing said embryos on callus induction medium to yield an embryogenic callus;
 - (g) subculturing the embryogenic callus produced on said callus induction medium to embryo induction medium to form an embryogenic callus containing embryos;
 - (h)
 - (i) introducing an expression vector into said incubating embryogenic callus to produce transformed embryogenic callus, wherein said expression vector comprises a selectable marker gene and a second foreign gene, or
 - (ii) introducing two expression vectors into said incubating embryogenic callus to produce transformed embryogenic callus, wherein one of said expression